- 1. <u>PURPOSE</u>. This change transmits revisions to Chapter 4, Air Traffic Control, and Appendix 2, Summary of Establishment and Discontinuance Criteria.
- 2. <u>EXPLANATION OF CHANGE</u>. This change serves two purposes:
- a. It provides establishment criteria for Metroplex Control Facilities (MCFs). The criteria provide for a preliminary screening (Phase I Criteria) based on number of instrument operations and number of enplanements and a second screening for those candidates passing the Phase I Criteria based on benefit/cost analysis (Phase II Criteria). The Phase I and Phase II Criteria are based on a benefit/cost analysis presented in Report FAA-APO-93-7, "Establishment Criteria for Metroplex Control Facilities (MCFs)." Copies of this report are available from APO-220.
- b. It describes the process for considering the consolidation of airspace and facilities among alternatives for Terminal Radar Approach Control (TRACON) modernization/relocation. The criteria for consolidation are based on operational needs and cost benefit analyses as presented in Report FAA-AAT-93-2, "Operational Requirements and Facility Investment Criteria for Metroplex Control Facilities (MCF) and Terminal Radar Approach Control (TRACON) Facilities."
- 3. <u>DISPOSITION OF TRANSMITTAL</u>. After filing the attached pages, this change transmittal should be retained.

PAGE	CONTROL	CHART

Remove Pages	Dated	Insert Pages	Dated
iii iv	10/20/89 02/05/91	iii iv	10/20/89 9/24/93
	\$	61 thru 65 (and 66)	9/24/93
		Appendix 2 17 (and 18)	9/24/93

Initiated By:

APO-220

David R. Hinson Administrator

Distribution: A-WYZ-2; A-X(minus AF/AS/AT/FS/PL)-2;

A-X(AF/AS/AT/FS/PL)-3; A-FAF-2/3(LTD);

A-FAS-1(LTD); A-FAT-1,2,5,6(LTD)

·			

	1.	rurpose	1
	2.	Distribution	1
	3.	Cancellation	1
	4.	Background	1
	5.	Explanation of Changes	2
		Authority of Changes to this Order	2
	7.	Policy	2
		Scope	2
		Scope	5
		P. Reserved	6
CF	IAPTER 2.	NAVIGATION AIDS	11
	SECTI	ION 1. AIR NAVIGATION RADIO AIDS	11
	20.	Microwave Landing System (MLS) with Approach Lights	11
		Instrument Landing System (ILS) with Approach Lights	14-2
*	22.	Nonprecision Instrument Approach System	17
		VOR Test Signal (VOT)	• ,
		25. Reserved	24
	SECTI	ON 2. RADAR SERVICES	27
	26.	Airport Surveillance Radar with Air Traffic Control	
		Radar Beacon System and Automated Radar Terminal	
		System (ASR/ATCRBS/ARTS)	27
	27.	Precision Approach Radar (PAR)	31
		29. Reserved	31
CH	IAPTER 3.	AERONAUTICAL LIGHTING AND AIRPORT MARKING AIDS	35
	30.	Runway End Identification Light (REIL)	35
		Visual Approach Slope Indicator (VASI) VFR Only	37
	32.		41
	333	99. Reserved	42

		_		48
	43.	rer	minal En Route Control Service	51
	44.	Air	port Surface Detection Equipment (ASDE)	51
	45.	Aut	omatic Terminal Information Service (ATIS)	52
	46.	Aut	omated Weather Observing System (AWOS)	52
	47.	Pol	icy on Administrative Combination of Terminal	32
		Con	trol Facilities	56
	48.		-Level Windshear Alert System (LLWAS)	
	49.	Ter	minal Doppler Weather Radar (TDWR)	56
	50.	Air	port Surveillance Radar (ASR) Modification	59
		for	Windshear Detection	
	51			60
	J1.	and	egrated Widnshear Detection Systems: LLWAS, TDWR, Modified ASR	
*	50			60
•	52.	Ter	roplex Control Facility (MCF)	61
	53.	rer	minal Radar Approach Control (TRACON) Facility	65
APP	ENDTX	1	REMOTENESS-COMPENSATION FOR BENEFIT/COST	
		••	CRITERIA (2 pages)	
			oklibkik (2 pages)	1
APP	ENDIX	2.	SUMMARY OF ESTABLISHMENT AND DISCONTINUANCE	
			CRITERIA (17 pages)	
			(1) pu bob)	1
	Figur	e 1	- Criteria Summary for Chapter 2, Navigation Aids	3
			Section 1. Air Navigation Aids	3
			Section 2. Radar Services	7
	Figur	e 2	- Criteria Summary for Chapter 3, Aeronautical	,
			Lighting and Airport Marking Aids	9
	Figur	e 3	- Criteria Summary for Chapter 4, Air Traffic Control	-
	_		onapter 4, kir marrie control	11
APP	ENDIX	3.	SUMMARY OF "CRITICAL VALUES" (5 pages)	1
				•
APP	ENDIX	4.	ESTABLISHMENT AND DISCONTINUANCE CRITERIA FOR AIRPORT	
			TRAFFIC CONTROL TOWER FACILITIES FINAL RULE (6 Pages)	1

restructured from current TRACON and/or en route airspace, (2) if establishing an MCF improves traffic management, or (3) if establishing an MCF results improved air traffic control procedures. The regions shall submit the names of TRACONS which they believe will make likely candidates for becoming an MCF. The regions shall assess MCF candidates according to an operational screen, Phase I and Phase II Criteria.

- (1) Operational Screen. Details of the Operational Screen may be found in Report FAA-AAT-93-2, "Operational Requirements and Facility Investment Criteria for Metroplex Control Facilities (MCF) and Terminal Radar Approach Control (TRACON) Facilities," available from ATR-310. The Operational Screen is summarized below:
- (a) The proposed candidate MCF consists of a single TRACON or the consolidation of two to seven TRACONs. If more than seven TRACONs are proposed for consolidation into an MCF, the proposed candidate MCF does not qualify.
- (b) The proposed candidate MCF will generate benefits to the National Airspace System by the restructuring of terminal or terminal and en route airspace, improved traffic management, and/or improved air traffic control procedures. If it cannot be demonstrated that at least one of these three types of efficiencies will be realized, the proposed candidate MCF does not qualify.
- (2) <u>Phase I Criteria</u>. Phase I Criteria are simple tests for identifying possible candidate sites for MCFs:
- (a) A proposed candidate MCF passes Phase I Criteria if the previous fiscal year's Air Carrier Instrument Operations or Air Carrier Enplanements are greater than specific numbers (which vary by fiscal year). See Report Number FAA-APO-93-7, "Establishment Criteria for Metroplex Control Facilities (MCFs)" for the specific values to be used. For decision year FY 1993, the respective values are 432,000 Instrument Operations in FY 1992 for Air Carrier Instrument Operations or 23.3 million passengers enplaned in FY 1992 for Air Carrier Enplanements.

AC = Air Carrier Instrument Operations

ATCOM = Air Taxi and Commuter Instrument Operations

GA = General Aviation Instrument Operations

MI = Military Instrument Operations

Then, using the previous fiscal year's actual data on instrument operations as reported in "FAA Air Traffic Activity" Report, (e.g., Table 9, Instrument Operations by FAA-Operated ATCT's, TRACONS, CERAPS, & RAPCONS by State) calculate the Phase I Establishment Ratio Sum is:

$$[(a * AC) + \beta * ATCOM) + (y * GA) + (\delta * MI)] / 43,600,000$$

where the specific values of a, β , γ , and δ , vary by fiscal year. See Report Number FAA-APO-93-7, for the specific values to be used in the Phase I Establishment Ratio Sum. For decision year FY 1993, the Phase I Establishment Ratio Sum is:

```
[(100.96*AC) + (11.39*ATCOM) + (3.31*GA) + (9.84*MI)] / 43,600,000.
```

If this ratio sum is greater than or equal to one, then the proposed site becomes a candidate for MCF establishment. There is an alternative to the Phase I Establishment Ratio Sum based on enplanements. (See Report Number FAA-APO-93-7, for the specific number of enplanements to use.)

<u>NOTE</u>: Candidate facilities for MCFs which have already accomplished a study comparing the benefits and costs of consolidating airspace which will be controlled by the candidate MCF should go directly to Phase II Criteria.

- (3) <u>Benefit/Cost Criteria (Phase II)</u>. Phase II Criteria, detailed in Report Number FAA-APO-93-7, compare the present value of MCF benefits with the present value of costs over a 20 year time frame, using site-specific analyses to develop the benefits and the costs. A location meets MCF establishment criteria when the ratio of benefits to costs is 1.0 or greater.
- (4) Phase I is used to identify a potential candidate and Phase II verifies its economic Justification.

Chap 4 Par 52

- (1) Factors unique to the location such as airspace restrictions, weather, seismic conditions, topography, and impact on adjacent facilities.
- (2) Specific trend analysis and/or forecast data that predict significant changes in traffic activity attributable to unique local conditions, thus necessitating replacement or refurbishment of an existing facility.
 - (3) Military requirements.
- c. <u>Discontinuance</u>. Approach control service that was available within existing resources may continue to be provided regardless of activity if it facilitates operational safety or efficient utilization of airspace. Based on the history for the formation of these facilities, it is highly unlikely that it will be more operationally or economically advantageous for an MCF to cease rather than continue operation. In the event that unique circumstances exist, the regions will identify any MCF candidate for discontinuance of service or decommissioning based on a site-specific operational and economic analysis.

Chap 4 Par 52

		-		
,				

terminal capable facilities as outlided in FAA-AAT-93-2, "Operational Requirements and Facility Investment Criteria for Metroplex Control Facilities (MCF) and Terminal Radar Approach Control (TRACON) Facilities".

b. FAA Regional Offices will identify their operational needs and justification during submission of the annual F&E budget call response to FAA Headquarters. Order 6480.17 will be used to determine the proper classification of facility based on cost-effectiveness. Upon approval by the Associate Administrator for Air Traffic (AAT-1), proposed projects will be considered for inclusion in the Capital Investment Plan (CIP) and FAA budget request. TRACONs approved for funding will normally by included in existing CIP projects. TRACONs which meet the MCF criteria requirements will be included in existing or new CIP projects. The provisions of Order 1810.1F, Acquisition Policy, will be applied when applicable.

Chap 4 Par 53

Page 65 (and 66)

		-		
			·	

FIGURE 3. SUMMARY OF ESTABLISHMENT AND DISCONTINUANCE CRITERIA FOR CHAPTER 4, AIR TRAFFIC CONTROL (CONTINUED)

			Additiona
Facility or Service	Establishment	Discontinuance or Im	or Improv
Metroplex Control	Sum of ratio values	Site specific	
Facility, Paragraph 52	equals or excess 1.0 or	justification.	
1	number of instrument	•	
	operations or		
	enplanements exceeds		
	values identified in		
	FAA-APO-93-7 plus		
	benefit/cost study.		
Terminal Radar Approach	Accomplished in	Accomplished in	
Control (TRACON)	accordance with	accordance with	
Facility, Paragraph 53.	procedures of	procedures of	
	Order 6480.17, Terminal	Order 6480.17, Terminal	
	Facility Modernization/	Facility Modernization/	
	Relocation Survey and	Relocation Survey and	
	Evaluation Handbook, and	Evaluation Handbook, and	
	AAT-93-2, "Operational	AAT-93-2, "Operational	
	Requirements and Facility	Requirements and Facility	
	Investment Criteria for	Investment Criteria for	
	Metroplex Control	Metroplex Control	
	Facilities (MCF) and	Facilities (MCF) and	
	Terminal Radar Approach	Terminal Radar Approach	
	Control (TRACON)	Control (TRACON)	
	Facilities."	Facilities."	

		•
	**	